

This listing of claims replaces all prior versions and listings of claims in the application.

In the Claims:

1. (currently amended) An integrated circuit, comprising:

a plurality of output signal lines including a first output signal line;

a plurality of data transmitters including a plurality of default data transmitters and at least one redundancy data transmitter; and

a plurality of connection elements each including a fuse having a first, low impedance an electrically conductive connecting state, and having a second, high impedance, an electrically high resistive disconnecting state and an antifuse having an electrically high resistive state and an electrically conductive state, at least a first connection element of said plurality of connection elements being operable to having a fuse conductively connecting connect and disconnect a first default data transmitter of said plurality of default data transmitters from a to said first output signal line when said fuse is in said electrically conductive state and electrically disconnecting said first default data transmitter from said first output signal line when said fuse is in said electrically high resistive state, said antifuse electrically disconnecting said first connection element further being operable to connect and disconnect said redundancy data transmitter from said first output signal line when said antifuse is in said electrically high resistive state and said antifuse conductively connecting said redundancy data transmitter to said first output signal line when said antifuse is in said electrically

conductive state.

2. (currently amended) The integrated circuit of claim 1, further comprising a plurality of wherein at least a second connection element of said plurality of connection elements, each including a second fuse having an electrically conductive state and an electrically high resistive state, at least one of said second fuses conductively connecting said first default data transmitter to a first input signal line when said second fuse is in said electrically conductive state and electrically disconnecting said first default data transmitter from said first input signal line when said second fuse is in said electrically high resistive state, said first connection element further including a second antifuse having an electrically high resistive state and an electrically conductive state, said second antifuse electrically disconnecting said redundancy data transmitter from said first input signal line when said antifuse is in said electrically high resistive state and conductively connecting said redundancy data transmitter to said first input signal line when said antifuse is in said electrically conductive state.

~~is operable to connect and disconnect said first default data transmitter from a first input signal line, said second connection element further being operable to connect and disconnect said redundancy data transmitter from said second input signal line.~~

3-5. (cancelled)

6. (currently amended) The integrated circuit of claim 215 wherein said first connection element further includes a first antifuse and said second connection element further includes a second antifuse, wherein said first antifuse ~~first connection element~~ conductively connects said redundancy data transmitter to said first output signal line when said first antifuse is in a low impedance state and electrically disconnects said redundancy data transmitter from said first output signal line when said first antifuse is in a high impedance state and said second antifuse ~~of said second connection element~~ conductively connects said redundancy data transmitter to said first input signal line when said second fuse is in said a low impedance state and electrically disconnects said redundancy data transmitter from said first input signal line when said second fuse is in said a high impedance state.

7-9. (cancelled)

10. (currently amended) The integrated circuit of claim 7-22 wherein said first and second MEM switches include MEM switches of the type having a signal pad restrained by a plurality of hinge brackets for movement in a substantially vertical direction in response to electrostatic force to switch between a connecting state and a disconnecting state.

11. (currently amended) The integrated circuit of claim 2 wherein ~~said each of said~~

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default data transmitters provides a pair of differential signal outputs and receives a pair of differential signal inputs, such that said first output signal line includes a pair of differential signal conductors for receiving said differential signal outputs and said first input signal line includes a pair of differential signal conductors for providing said differential signal inputs.

12-20. (cancelled)

21. (new) An integrated circuit, comprising:

- a plurality of output signal lines including a first output signal line;
- a plurality of input signal lines including a first input signal line;
- a plurality of data transmitters including a plurality of default data transmitters and at least one redundancy data transmitter; and
- a plurality of first connection elements each including a first fuse having an electrically conductive state and an electrically high resistive state, at least one of said first fuses conductively connecting a first default data transmitter of said plurality of default data transmitters to said first output signal line when said first fuse is in said electrically conductive state and electrically disconnecting said first default data transmitter from said first output signal line when said first fuse is in said electrically high resistive state; and
- a plurality of second connection elements each including a second fuse having

an electrically conductive state and an electrically high resistive state, at least one of said second fuses conductively connecting said first default data transmitter to said first input signal line when said second fuse is in said electrically conductive state and electrically disconnecting said first default data transmitter from said first input signal line when said second fuse is in said electrically high resistive state.

22. (new) An integrated circuit, comprising:

- a plurality of output signal lines including a first output signal line;

- a plurality of input signal lines including a first input signal line;

- a plurality of data transmitters including a plurality of default data transmitters and at least one redundancy data transmitter; and

- a plurality of first connection elements each including a first MEM switch having an electrically conductive state and an electrically high resistive state, at least one of said first MEM switches conductively connecting a first default data transmitter of said plurality of default data transmitters to said first output signal line when said first MEM switch is in said electrically conductive state and electrically disconnecting said first default data transmitter from said first output signal line when said first MEM switch is in said electrically high resistive state; and

- a plurality of second connection elements each including a second MEM switch having an electrically conductive state and an electrically high resistive state, at least one of said second MEM switches conductively connecting said first default data

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transmitter to said first input signal line when said second MEM switch is in said electrically conductive state and electrically disconnecting said first default data transmitter from said first input signal line when said second MEM switch is in said electrically high resistive state.